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ISIS-5028

Substitute for form 1449A/PTO Complete if Known Application Number 10/080,979 INFORMATION DISCLOSURE Filing Date 02/22/2002 STATEMENT BY APPLICANT First Named Inventor Phillip Dan Cook Art Unit (Use as many sheets as necessary) Examiner Name Amy Hudson Bowman

Attorney Docket Number

			U.S. PATENT	OCUMENTS	
Examiner Cite		Document Number	Publication Date	Name of Patentee or Applicant of	Pages, Columns, Lines, Where Relevan
Initiats *	No.¹	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY	Cited Document	Pages, Columns, Lines, Where Relevan Passages or Relevant Figures Appear
UKIS	AA	US-3,687,808	08-29-1972	Merigan, Jr. et al.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	AB	US-4,605,735	08-12-1986	Miyoshi et al.	
	AC	US-4,689,320	08-25-1987	Kaji	
	AD	US-4,743,535	05-10-1988	Сагтісо	
1	AE	US-4,806,463	02-21-1989	Goodchild et al.	
	AF	US-4,835,263	05-30-1989	Nguyen et al.	
	AG	US-4,904,582	02-27-1990	Tullis	
	AH	US-4,910,300	03-20-1990	Urdea et al.	
	Al	US-4,958,013	09-18-1990	Letsinger	
	AJ	US-5,015,733	05-14-1991	Smith et al.	
T	AK	US-5,034,506	07-23-1991	Summerton et al.	
	AL	US-5,087,617	02-11-1992	Smith	
	AM	US-5,098,890	03-24-1992	Gewirtz et al.	
	AN	US-5,108,921	04-28-1992	Low et al.	
	AO	US-5,135,917	08-04-1992	Burch	
	AP	US-5,138,045	08-11-1992	Cook et al.	
	AQ	US-5,166,195	11-24-1992	Ecker	
	AR	US-5,194,428	03-16-1993	Agrawal et al.	
	.A\$	US-5,212,295	05-18-1993	Cook	
V	AT	US-5,218,105	06-08-1993	Cook et al.	

		FOREIGN PA	ATENT DOCU	MENTS		
Cuaminas	Cita	Foreign Patent Document	D. A.F No.	Name of Patentee or	Pages, Columns, Lines,	
Examiner Cite Initials* No.1		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (# known)	Publication Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
MD	AU	EP 0 251 283 A2	01-07-1998	Wakuпаga		
ì	AV	WO 86/02929	05-22-1986	Life Technologies		
	AW	WO 89/02931	04-06-1989	Cetus Corp.		
	AX	WO 89/12060	12-14-1989	Benner		
	AY	WO 90/10448	09-20-1990	Genentech Inc.		
	AZ	WO 90/13300	11-15-1990	Biogen Inc.		
	BA	WO 91/00243	01-10-1991	Union Oil Co.		
	BB	WO 91/14696	10-03-1991	Gilead Sciences		
	BC	WO 91/15500	10-17-1991	Du Pont		
	BD	WO 92/05186	04-02-1992	Gilead Sciences		
V	BE	WO 95/06659	03-09-1995	Isis Pharm.		

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Examiner Signature	Mypour	Date Considered	7/26/8

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Substitute for form 1449A/PTO

### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 27

Complete if Known			
Application Number	10/080,979		
Filing Date	02/22/2002		
First Named Inventor	Phillip Dan Cook		
Art Unit	1635		
Examiner Name	Amy Hudson Bowman		
Attorney Docket Number ISIS-5028			

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No.'	Document Number Number - Kind Code <sup>2</sup> (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
ams	BF	US-5,223,618	06-29-1993	Cook et al.	
1	BG	US-5,242,906	09-07-1993	Pagano et al.	
	BH	US-5,264,423	11-23-1993	Cohen et al.	
	BI	US-5,272,263	12-21-1993	Hession et al.	
	BJ	US-5,276,019	01-04-1994	Cohen et al.	
	BK.	US-5,284,931	02-08-1994	Springer et al.	
	BL	US-5,286,717	02-15-1994	Cohen et al.	
	ВМ	US-5,324,654	06-28-1994	Bredesen	
	BN	US-5,378,825	01-03-1995	Cook et al.	
	ВО	US-5,386,023	01-31-1995	Sanghvi et al.	
1	BP	US-5,457,191	10-10-1995	Cook et al.	
	BQ	US-5,459,255	10-17-1995	Cook et al.	
	BR	US-5,466,786	11-14-1995	Buhr et al.	
	BS	US-5,470,967	11-28-1995	Huie et al.	
	BT	US-5,506,351	04-09-1996	McGee	
	BU	US-5,510,239	04-23-1996	Baracchini et al.	
	BV	US-5,514,788	05-07-1996	Bennett et al.	
	BW	US-5,521,302	05-28-1996	Cook	
	BX	US-5,539,082	07-23-1996	Nielsen et al.	
	BY	US-5,541,307	07-30-1996	Cook et al.	
	BZ	US-5,554,746	09-10-1996	Ravikumar et al.	
	CA	US-5,571,902	11-05-1996	Ravikumar et al.	
	СВ	US-5,578,718	11-26-1996	Cook et al.	
$\neg$	СС	US-5,580,969	12-03-1996	Hoke et al.	
	CD	US-5,585,479	12-17-1996	Hoke et al.	
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$\overline{}$	CF	US-5,587,469	12-24-1996	Cook et al.	
V	CG	US-5,587,470	12-24-1996	Cook et al.	

FOREIGN PATENT DOCUMENTS						
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Examiner Cite No.1		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>6</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	70
11/11/2	СН	WO 96/02556	02-01-1996	Hybridon Inc.		

Examiner Signature	athbound	Date Considered	7/240	

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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet of 27

Complete if Known			
Application Number	10/080,979		
Filing Date	02/22/2002		
First Named Inventor	Phillip Dan Cook		
Art Unit	1635		
Examiner Name	Amy Hudson Bowman		
Attorney Docket Number	ISIS-5028		

			U.S. PATENT D	OCUMENTS	
Examiner Cite Initials No. 1		Document Number  Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentiee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
(MS	Cl	US-5,591,623	01-07-1997	Bennett et al.	Figures Appear
$m\sim$	Ci	US-5,596,090	01-21-1997	Hoke et al.	
1	CK	US-5,599,797	02-04-1997	Cook et al.	
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	CO	US-5,618,704	04-08-1997	Sanghvi et al.	
	CP	US-5,623,070	04-22-1997	Cook et al.	·
7	CQ	US-5,670,633	09-23-1997	Cook et al.	
$\langle \mathbf{x} \rangle$	CR	US-5,677,437	10-14-1997	Teng et al.	
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		FOREIGN PA	TENT DOCU	MENTS		
Evenine	Examiner Cite No.1	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines, Where Relevant	
		Country Cade <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>6</sup> ( <i>il known</i> )	Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T <sup>6</sup>
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of 27 Sheet

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Art Unit	1635		
Examiner Name	Amy Hudson Bowman		
Attorney Docket Number	ISIS-5028		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
(Attos	cs	ADAMS, D. H. et al., "Intercellular Adhesion Molecule 1 on Liver Allografts During Rejection," Lancet (1989) 334(8672): 1122-1125.	
1	СТ	AGARWAL, K. L. et al., "Synthesis and enzymatic properties of deoxyribooligonucleotides containing methyl and phenylphosphonate linkages," <i>Nucleic Acids Research</i> (1979) 6(9):3009-3024.	
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Examiner	HARM	Date Considered	Thislor
Signature \	JULOUVO	Considered	114418

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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of 27 Sheet

Complete if Known				
Application Number	10/080,979			
Filing Date	02/22/2002			
First Named Inventor	Phillip Dan Cook			
Art Unit	1635			
Examiner Name	Amy Hudson Bowman			
Attorney Docket Number	ISIS-5028			

		NON PATENT LITERATURE DOCUMENTS	·
Examiner	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
Oths	DE	BAKER, B.F., "Decapitation of a 5'-Capped Oligoribonucleotide by o-Phenanthroline: CU(II)," J. Am. Chem. Soc. (1993) 115(8):3378-3379.	
	DF	BALABAN, I. et al., "Bromo-derivatives of Glyoxaline," Journal of Chemical Society (1922) 121: 947-958.	
	DG	BEAUCAGE, S. L. et al., "Advances in the Synthesis of Oligonucleotides by the Phosphoramidite Approach," <i>Tetrahedron</i> (1992) 48(12):2223-2311.	
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	xaminer Signature	Utbour	Date Considered	+12618 )

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/080,979

Filling Date 02/22/2002

First Named Inventor Phillip Dan Cook

Art Unit 1635

Examiner Name Amy Hudson Bowman

(Use as many sheets as necessary)

Sheet 6 of 27 Attorney Docket Number ISIS-5028

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
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	ED	CALVO-MATEO, A. et al., "3'-C-Cyano-3'-Deoxythymidine," Tetrahedron Letters (1988) 29(8): 941-944.	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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### ÍNFORMATION DISCLOSURE STATEMENT BY APPLICANT

Art Unit Examiner Name

Filing Date

Application Number 10/080,979 02/22/2002 First Named Inventor Phillip Dan Cook 1635 Amy Hudson Bowman

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of 27 Sheet

Attorney Docket Number ISIS-5028

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Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
Setts	EF	CARLOS, T. et al., "Human Monocytes Bind to Two Cytokine-Induced Adhesive Ligands on Cultured Human Endothelial Cells: Endothelial-Leukocyte Adhesion Molecule-1 and Vascular Cell Adhesion Molecule-1," <i>Blood</i> (1991) 77(10):2266-2271.	
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	EK	CHEN, CJ. et al., "Genomic Organization of the Human Multidrug Resistance (MDR1) Gene and Origin of P-glycoproteins," J. Biol. Chem. (1990) 265(1):506-514.	
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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/080,979			
Filing Date	02/22/2002			
First Named Inventor	Phillip Dan Cook			
Art Unit	1635			
Examiner Name	Amy Hudson Bowman			
Attorney Docket Number	ISIS-5028			

	NON PATENT LITERATURE DOCUMENTS	
Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
ER	CHOU, TC. et. al., "Quantitative Analysis of Dose-Effect Relationships: The Combined Effects of Multiple Drugs or Enzyme Inhibitors," Adv. Enz. Regul. (1984) 22: 27-55.	
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EX	COREY, D. et al., "Generation of a Hybrid Sequence-Specific Single-Stranded Deoxyribonuclease," Science (1987) 238:1401-1403.	
EY	COREY, D. et al., "Sequence-Selective Hydrolysis of Duplex DNA by an Oligonucleotide- Directed Nuclease," J. Am. Chem. Soc. (1989) 111(22):8523-8525.	
EZ	CORRIAS, M. V. et al., "An Oligomer Complementary to the 5' End Region of MDR1 Gene Decreases Resistance to Doxorubicin of Human Adenocarcinoma-Resistant Cells," Anticancer Res. (1992) 12: 1431-1438.	
FA	COSIMI, A. B. et al., "In Vivo Effects of Monoclonal Antibody to ICAM-1 (CD54) in Nonhuman Primates with Renal Allografts," J. Immunol. (1990) 144(12): 4604-4612.	
FB	CROOKE, S. T. et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice," J. Pharmacol Exp. Ther. (1996) 277(2):923-937.	
FC	CROOKE, S. T. et al., "Progress in the development and patenting of antisense drug discovery technology," Exp. Opin. Ther. Patents (1996) 6(9): 855-870.	
	ER ES ET EU EV EW EX EY FA FB	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.  CHOU, TC. et al., "Quantitative Analysis of Dose-Effect Relationships: The Combined Effects of Multiple Drugs or Enzyme Inhibitors," Adv. Enz. Regul. (1984) 22: 27-55.  CODINGTON, J. F. et al., "Nucleosides. XVIII. Synthesis of 2'-Fluorothymidine, 2'-Fluorodeoxyuridine, and Other 2'-Halogeno-2'-Deoxy Nucleosides," J. Org. Chem. (1964) 29: 558-564.  ET COHEN, J., in Oligonucleotides: Antisense Inhibitors of Gene Expression, CRC Press, Inc., Boca Raton, FL, 1989.  CONSTANT, J. F. et al., "Heterodimeric Molecules Including Nucleic Acid Bases and 9-Aminoacridine. Spectroscopic Studies, Conformations and Interactions with DNA", Biochemistry (1988) 27(11):3997-4003.  EV COOK, P. D. et al., "Synthesis and Antiviral and Enzymatic Studies of Certain 3-Deazaguanines and Their Imidazolecarboxamide Precursors," J. Med. Chem. (1978) 21(12):1212-1218.  EW COONEY, M. et al., "Site-Specific Oligonucleotide Binding Represses Transcription of the Human c-myc Gene in Vitro," Science (1988) 241: 456-459.  EX COREY, D. et al., "Generation of a Hybrid Sequence-Specific Single-Stranded Deoxyribonuclease," Science (1987) 238:1401-1403.  EY COREY, D. et al., "An Oligomer Complementary to the 5' End Region of MDR1 Gene Decreases Resistance to Doxorubicin of Human Adenocarcinoma-Resistant Cells," Anticancer Res. (1992) 12: 1431-1438.  FA COSIMI, A. B. et al., "In Vivo Effects of Monoclonal Antibody to ICAM-1 (CD54) in Nonhuman Primates with Renal Allografts," J. Immunol. (1990) 144(12): 4604-4612.  ER CROOKE, S. T. et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice," J. Pharmacol Exp. Ther. (1996) 277(2):923-937.

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Complete if Known				
Application Number	10/080,979	-		
Filing Date	02/22/2002			
First Named Inventor	Phillip Dan Cook			
Art Unit	1635			
Examiner Name	Amy Hudson Bowman			
Attorney Docket Number	ISIS-5028			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
Oths	FD	DAMHA, M. J. et al., "Solution and solid phase chemical synthesis of arabinonucleotides," Can. J. Chem. (1989) 67: 831-839.	
(	FE	DAMHA, M. J. et al., "An improved procedure for derivatization of controlled-pore glass beads for solid-phase oligonucleotide synthesis," <i>Nucleic Acids Res.</i> (1990) 18(13): 3813-3821.	
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	FH	DE SMIDT, P.C. et al., "Association of antisense oligonucleotides with lipoproteins prolongs the plasma half-life and modifies the tissue distribution", Nucl. Acids Res. (1991) 19(17):4695-4700.	
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	FK	DELGADO, C. et al, "The Uses and Properties of PEG-Linked Proteins," Critical Reviews in Therapeutic Drug Carrier Systems (1992) 9(3,4):249-304.	
	FL	DINGWALL, C. et al., "Protein Import Into the Cell Nucleus," Ann. Rev. Cell Biol. (1986) 2: 367-390.	
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	FN	DIZIO, J. et al., "Progestin-Rhenium Complexes: Metal-Labeled Steroids with High Receptor Binding Affinity, Potential Receptor-Directed Agents for Diagnostic of Imaging or Therapy," Bioconjugate Chem. (1991) 2(5):353-366.	
	FO	DOAN, P. L. et al., "Sequence-targeted chemical modifications of nucleic acids by complementary oligonucleotides covalently linked to porphyrins," <i>Nucl. Acids Res.</i> (1987) 15(21):8643-8659.	
<b>&gt;</b>	FP	DREYER, G. et al., "Sequence-specific cleavage of single-stranded DNA: Oligodeoxynucleotide-EDTA-Fe(II)," Proc. Natl. Acad. Sci. USA (1985) 82:968-972. Correction (1985) 82: 3532.	

Examiner Signature	14 Kour	Date Considered	7/26/05

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of | 27 Sheet 10

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Complete if Known						
Application Number	10/080,979					
Filing Date	02/22/2002	_				
First Named Inventor	Phillip Dan Cook					
Art Unit	1635					
Examiner Name	Amy Hudson Bowman					
Attorney Docket Number	ISIS-5028					

		NON PATENT LITERATURE DOCUMENTS	
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Outs	FQ	DUSTIN, M. L. et al., "Lymphocyte Function-associated Antigen-1 (LFA-1) Interaction with Intercellular Adhesion Molecule-1 (ICAM-1) is One of At Least Three Mechanisms for Lymphocyte Adhesion to Cultured Endothelial Cells", J. Cell Biol. (1987) 107:321-331.	
	FR	ECKSTEIN, F. et al., "Polynucleotides Containing 2'-Chloro-2'-Deoxyribose," Biochemistry (1972) 11(23):4336-4344.	
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	FT	EFFERTH, T. et al., "Modulation of P-Glycoprotein-Mediated Multidrug Resistance by Monoclonal Antibodies, Immunotoxins or Antisense Oligodeoxynucleotides in Kidney Carcinoma and Normal Kidney Cells," Oncology (1993) 50: 303-308.	
	FU	EGHOLM, M. et al., "Peptide Nucleic Acids (PNA). Oligonucleotide Analogues with an Achiral Peptide Backbone," J. Am. Chem. Soc. (1992) 114(5):1895-1897.	
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	FW	FAULL, R. J. et al., "Tubular Expression of Intercellular Adhesion Molecule-1 During Renal Allograft Rejection," <i>Transplantation</i> (1989) 48(2): 226-230.	
	FX	FERENTZ, A. E. et al, "Disulfide Cross-Linked Oligonucleotides," J. Am. Chem. Soc. (1991) 113(10): 4000-4002.	
	FY	FIDANZA, J. A. et al., "Site-Specific Labeling of DNA Sequences Containing Phosphorothioate Diesters," J. Am. Chem. Soc. (1992) 114(14):5509-5517.	
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1	GB	FRESKOS, J., "Synthesis of 2'-Deoxypyrimidine Nucleosides Via Copper (1) Iodide Catalysis," Nucleosides & Nucleotides (1989) 8(5&6): 1075-1076.	
Y	GC	FROEHLER, B. et al., "Synthesis of DNA via deoxynucleoside H-phosphonate intermediates", Nucleic Acids Research (1986) 14(13): 5399-5407.	

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Application Number	10/080,979	
Filing Date	02/22/2002	
First Named Inventor	Phillip Dan Cook	_
Art Unit	1635	
Examiner Name	Amy Hudson Bowman	
Attorney Docket Number	ISIS-5028	

			NON PATENT LITERATURE DOCUMENTS	
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(X)	FROHMAN, E. M. et al., "The induction of intercellular adhesion molecule 1 (ICAM-1) expression on human fetal astrocytes by interferon-γ, tumor necrosis factor α, lymphotoxin, and interleukin-1: relevance to intracerebral antigen presentation," J. Neuroimmunol (1989) 23: 117-124.			
		GE	GAFFNEY, B. et al., "A New Strategy for the Protection of Deoxyguanosine During Oligonucleotide Synthesis," <i>Tetrahedron Letters</i> (1982) 23(22): 2257-2260.	
•		GF	GAIT, M. J., "Oligonucleotide Synthesis", IRL Press, 1985	
		GG	GAO, J. et al., "Cloning and Characterization of a Mouse Gene with Homology to the Human von Hippel-Lindau Disease Tumor Suppressor Gene: Implications for the Potential Organization of the Human von Hippel-Lindau Disease Gene," Cancer Res. (1995) 55: 743-747.	
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		GM	GOODCHILD, J. et al., "Inhibition of human immunodeficiency virus replication by antisense oligodeoxynucleotides," <i>Proc. Natl. Acad. Sci. USA</i> (1988) 85: 5507-5511.	
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### **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

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Art Unit

Filing Date

Application Number 10/080,979 02/22/2002 First Named Inventor Phillip Dan Cook 1635

Complete if Known

Amy Hudson Bowman Examiner Name

Sheet 12 Attorney Docket Number ISIS-5028

_		NON PATENT LITERATURE DOCUMENTS	
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		Τ²	
UtB	GP	GRAHAM, M. J. et al., "Tritium labeling of antisense oligonucleotides by exchange with tritiated water," <i>Nucleic Acids Res.</i> (1993) 21(16): 3737-3743.	
1	GQ	GREENE, T. W. et al., "Protection for the Carbonyl Group," Protective Groups in Organic Synthesis, 2nd ed., (1991) John Wiley & Sons, New York, pp. 178-223.	
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	GT	GRIFFITHS, C. E. M. et al., "Keratinocyte Intercellular Adhesion Molecule-1 (ICAM-1) Expression Precedes Dermal T Lymphocytic Infiltration in Allergic Contact Dermatitis (Rhus dermatitis)," Am. J. Pathology. (1989) 135(6): 1045-1053.	
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	GW	HALE, L. P. et al., "Immunohistologic Analysis of the Distribution of Cell Adhesion Molecules within the Inflammatory Synovial Microenvironment," Arth. Rheum. (1989) 32(1): 22-30.	
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	GY	HARALAMBIDIS, J. et al., "The Solid Phase Synthesis of Oligonucleotides Containing a 3'- Peptide Moiety," Tetrahedron Letters (1987) 28(43): 5199-5202.	
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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known Application Number 10/080,979 Filing Date 02/22/2002 First Named Inventor Phillip Dan Cook Art Unit 1635 Examiner Name Amy Hudson Bowman

(Use as many sheets as necessary)

Sheet 13 of 27 Attorney Docket Number ISIS-5028

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
(MI)	нс	HAUG, C. E. et al., "A Phase I Trial of Immunosuppression with Anti-ICAM-1 (CD54) mAb in Renal Allograft Recipients," <i>Transplantation</i> (1993) 55(4): 766-773.	
\	HD	HERTEL, L. W. et al., "Synthesis of 2-Deoxy-2,2-difluoro-D-ribose and 2-Deoxy-2,2-difluoro-D-ribofuranosyl Nucleosides," J. Org. Chem. (1988) 53(11): 2406-2409.	
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	нк	IKEHARA, M. et al., "Polynucleotides. L. Synthesis and properties of poly (2'-chloro-2'-deoxyadenylic acid) and poly (2'-bromo-2'-deoxyadenylic acid)," <i>Nucleic Acids Research</i> (1977) 4(12): 4249-4260.	
	HL	IKEHARA, M. et al., "Polynucleotides. LVI. Synthesis and properties of poly(2'-deoxy-2'-fluoroinosinic acid)," Nucleic Acids Research (1978) 5(9): 3315-3324.	
	нм	IKEHARA, M. et al., "Studies of Nucleosides and Nucleotides-LXV," Tetrahedron (1975) 31: 1369-1372.	
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V	но	IKEHARA, M. et al., "Studies of Nucleosides and Nucleotides-LXXIVI," <i>Tetrahedron</i> (1978) 34: 1133-1138.	

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Filing Date 02/22/2002 First Named Inventor Phillip Dan Cook Art Unit 1635 Amy Hudson Bowman Examiner Name

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Sheet 14 of 27 Attorney Docket Number ISIS-5028

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
aths	НР	IKEHARA, M., "Purine 8-Cyclonucleosides," Accounts of Chemical Research (1969) 2: 47-53.	
	НQ	IKEHARA, M. et al., "Studies of Nucleosides and Nucleotides. LXXIX. Purine Cyclonucleosides. (37). The Total Synthesis of an Antibiotic 2'-Amino-2'-deoxyguanosine," Chem. Pharm. Bull. (1978) 26: 240-244.	
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	нυ	ISHIDA, Y. et al., "Multidrug Resistance in Cultured Human Leukemia and Lymphoma Cell Lines Detected by a Monoclonal Antibody, MRK16," Jpn. J. Cancer Res. (1989) 80: 1006-1013.	
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	нw	ISOBE, M. et al., "Specific Acceptance of Cardiac Allograft After Treatment with Antibodies to ICAM-1 and LFA-1," Science (1992) 255: 1125-1127.	
	нх	IYER, R. et al., "3H-1,2-Benzodithiole-3-one, 1,1-Dioxide as an Improved Sulfurizing Reagent in the Solid-Phase Synthesis of Oligodeoxyribonucleoside Phosphorothioates," J. Am. Chem. Soc. (1990) 112: 1253-1254.	
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	HZ	JÄGER, A. et al., "Oligonucleotide N-Alkylphosphoramidates: Synthesis and Binding to Polynucleotides," Biochemistry (1988) 27(19): 7237-7246.	
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Application Number 10/080,979

Filing Date 02/22/2002

First Named Inventor Phillip Dan Cook

Art Unit 1635

Examiner Name Amy Hudson Bowman

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Sheet 15 of 27

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ONB	ìC	JAYARAMAN, K. et al., "Selective inhibition of <i>Escherichia coli</i> protein synthesis and growth by nonionic oligonucleotides complementary to the 3' end of 16S rRNA," <i>Proc. Natl. Acad. Sci. USA</i> (1981) 78(3): 1537-1541.	
1	'n	JONES, G. et al., "4'-Substituted Nucleosides. 5. Hydroxymethylation of Nucleoside 5'-Aldehydes," J. Org. Chem. (1979) 44(8): 1309-1317.	
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	JG	KAHAN, B. D. et al., "The Synergistic Interactions in vitro and in vivo of Brequinar Sodium with Cyclosporine or Rapamycin Alone and in Triple Combination," <i>Transplantation</i> (1993) 55(4): 894-900.	
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ams	JO	KITAJIMA, I. et al., "Ablation of Transplanted HTLV-I Tax-Transformed Tumors in Mice by Antisense Inhibition of NF - kB," Science (1992) 258: 1792-1795.	
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First Named Inventor Phillip Dan Cook Art Unit 1635 Examiner Name Amy Hudson Bowman

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ONTB	КВ	MACKELLAR, C. et al., "Synthesis and physical properties of anti-HIV antisense oligonucleotides bearing terminal lipophilic groups," Nucleic Acids Res. (1992) 20(13): 3411-3417.	
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	КН	MANOHARAN, M. et al., "Lipidic Nucleic Acids," Tetrahedron Letts. (1995) 36(21): 3651-3654.	
	кі	MANOHARAN, M. et al., "Novel Functionalization of the Sugar Moiety of Nucleic Acids For Multiple Labeling in the Minor Groove," <i>Tetrahedron Letts.</i> (1991) 32(49): 7171-7174.	
	КЈ	MARCUS-SEKURA, C. J., "Techniques for Using Antiscnse Oligodeoxyribonucleotides to Study Gene Expression," Anal. Biochemistry (1988) 172: 289-295.	
	KK	MARCUS-SEKURA, C. J. et al., "Comparative inhibition of chloramphenicol acetyltransferase gene expression by antisense oligonucleotide analogues having alkyl phosphotriester, methylphosphonate and phosphorothioate linkages," <i>Nucleic Acid Research</i> (1987) 15(14): 5749-5763.	
	KL	MARKIEWICZ, W. et al., "3',5'-Q-(Tetraisopropyldisiloxane-1,3-diyl)ribonucleosides," <i>Nucleic Acid Chemistry</i> Townsend, L. and Tipson, R. S. (eds.) J. Wiley and Sons, New York (1986): 229-231.	
<b>y</b>	КМ	MARKUSSEN, FH. et al., "Translational control of oskar generates a Short OSK, the isoform that induces pole plasm assembly," <i>Development</i> (1995) 121: 3723-3732.	

Examiner Signature	Othbor	Date Considered	The 185

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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	18	of	27	

	Complete if Known	
Application Number	10/080,979	
Filing Date	02/22/2002	
First Named Inventor	Phillip Dan Cook	
Art Unit	1635	
Examiner Name	Amy Hudson Bowman	
Attorney Docket Number	ISIS-5028	

		NON PATENT LITERATURE DOCUMENTS	
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		Τ²	
NAB	KN	MARLIN, S. D. et al., "A soluble form of intercellular adhesion molecule-1 inhibits rhinovirus infection," <i>Nature</i> (1990) 344: 70-72.	
1	ко	MARTIN, P., "Ein newer Zugang zu 2'-O-Alkylribonucleosiden and Eigenschaften deren Oligonucleotide," Helvetica Chemica Acta (1995) 78: 486-504.	
	КР	MATSUKURA, M. et al., "Phosphorothioate analogs of oligodeoxynucleotides: Inhibitors of replication and cytopathic effects of human immunodeficiency virus," <i>Proc. Natl. Acad. Sci. USA</i> (1987) 84: 7706-7710.	
	KQ	MCDERMOTT, J. B. et al., "Structure and lens expression of the gene encoding chicken βA3/A1-crystallin," Gene (1992) 117: 193-200.	
	KR	MEYER, Jr., R. B. et al., "Efficient, Specific Cross-Linking and Cleavage of DNA by Stable, Synthetic Complementary Oligodeoxynucleotides," J. Am. Chem. Soc. (1989) 111(22):8517-9.	
	KS	MILLER, D. E. et al., "Cytokine modulation of intercellular adhesion molecule-1 surface expression of human melanoma cells; correlation with adhesion of peripheral blood leukocytes", <i>Proc. Am.</i> Assoc. <i>Cancer Res.</i> (1990) 31: 60, Abstract 353.	
	кт	MILLER, P.S. et al., "A new approach to chemotherapy based on molecular biology and nucleic acid chemistry: Matagen (masking tape for gene expression)," <i>Anti-Cancer Drug Des.</i> (1987) 2: 117-128.	
·	KU	MILLER, P.S. et al., "Synthesis and Properties of Adenine and Thymine Nucleoside Alkyl Phosphotriesters, the Neutral Analogs of Dinucleoside Monophosphates," J. Am. Chem. Soc. (1971) 93(24): 6657-6665.	
	κv	MILLER, P. S. et al., "Nonionic Nucleic Acid Analogues. Synthesis and Characterization of Dideoxyribonucleoside Methylphosphonates," <i>Biochemistry</i> (1979) 18(23): 5134-5143.	
	кw	MILLER, P. S. et al., "Biochemical and Biological Effects of Nonionic Nucleic Acid Methylphosphonates," Biochemistry (1981) 20(7): 1874-1880.	
	кх	MIRABELLI, C. K. et al., "In vitro and in vivo pharmacologic activities of antisense oligonucleotides," Anti-Cancer Drug Des. (1991) 6: 647-661.	
7	кү	MISHRA, R. K. et al., "Improved leishmanicidal effect of phosphorotioate antisense oligonucleotides by LDL-medicated delivery," <i>Biochim. et Biophysica</i> (1995) 1264: 229-237.	

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Examiner Signature	attborn	Date Considered	7/26	05

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### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known			
Application Number	10/080,979		
Filing Date	02/22/2002		
First Named Inventor	Phillip Dan Cook		
Art Unit	1635		
Examiner Name	Amy Hudson Bowman		
Attorney Docket Number	ISIS-5028		

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utis	KZ	MITCHELL, M. J. et al., "Boron trifluoride-methanol complex as a non-depurinating detritylating agent in DNA synthesis," <i>Nucleic Acids Res.</i> (1990) 18(17): 5321.	
	LA	MITSUNOBU, O., "The Use of Diethyl Azodicarboxylate and Triphenylphosphine in Synthesis and Transformation of Natural Products," Synthesis (1981): 1-28.	
	LB	MONACO, A. P. et al., "Studies on Heterologous Anti-Lymphocyte Serum in Mice", J. Immunol. (1966) 96(2): 229-238.	
	LC	MONACO, L. et al., "Structure of Two Rat Genes Coding for Closely Related Rolipram-sensitive cAMP Phosphodiesterases," J. Biol. Chem. (1994) 269(1): 347-357.	
	LD	MORI, K. et al., "Synthesis and Properties of Novel 5'-Linked Oligos," Nucleosides & Nucleotides (1989) 8(5&6): 649-657.	
	LE	MORICE, W. G. et al., "Rapamycin-induced Inhibition of p34 <sup>cdc2</sup> Kinase Activation is Associated with G <sub>1</sub> /S-Phase Growth Arrest in T Lymphocytes," J. Biol. Chem. (1993) 268(5): 3734-3738.	
	LF	NAIR, V., "Development of Methodologies for the Strategic Modification of Purine Ribonucleoside Systems," <i>Nucleosides &amp; Nucleotides</i> (1989) 8(5&6): 699-708.	
	LG	NELSON, P. S. et al., "Bifunctional oligonucleotide probes synthesized using a novel CPG support are able to detect single base pair mutants," Nucleic Acids Res. (1989) 17)18: 7187-7194.	
	LH	NICKOLOFF, B. J. et al., "Accessory Cell Function of Keratinocytes for Superantigens," J. Immunol. (1993) 150(6): 2148-2159.	
	LI	NIELSEN, P. E. et al., "Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide," Science (1991) 254: 1497-1500.	
	ដ	OBERHAUSER, B. et al., "Effective incorporation of 2'-O-methyl-oligonucleotides into liposomes and enhanced cell association through modification with thiocholesterol," <i>Nucleic Acids Res.</i> (1992) 20(3): 533-538.	
$\sqrt{}$	LK	OHTSUKA, I. et al., "Recognition by restriction endonuclease <i>EcoRI</i> of deoxyoctanucleotides containing modified sugar moieties," <i>Eur. J. Biochem.</i> (1984) 139: 447-450.	
<u>V</u>	LL	OKAYASU, I. et al., "A Novel Method in the Induction of Reliable Experimental Acute and Chronic Ulcerative Colitis in Mice," Gastroenterology (1990) 98: 694-702.	

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of 27 Sheet 20

	Complete if Known	
Application Number	Complete if Known 10/080,979	
Filing Date	02/22/2002	
First Named Inventor		
Art Unit	Phillip Dan Cook 1635	
Examiner Name	Amy Hudson Bowman	
Attorney Docket Number	ISIS-5028	
Altorney bocket Number	1313-3028	

	·	NON PATENT LITERATURE DOCUMENTS	,
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
JUB	LM	OLSEN, S. R. et al., "Inhibition of Protein Kinase-A by Overexpression of the Cloned Human Protein Kinase Inhibitor," <i>Mol. Endocrinol.</i> (1991) 5: 1246-1256.	
۱	LN	OSBORN, L. et al., "Direct Expression Cloning of Vascular Cell Adhesion Molecule 1, a Cytokine-Induced Endothelial Protein that Binds of Lymphocytes," Cell (1989) 59: 1203-1211.	
	LO	OUCHI, T. et al., "Synthesis and Antitumor Activity of Poly(Ethylene Glycol)s Linked to 5- Fluorouracil Via a Urethane or Urea Bond," Drug Design and Discovery (1992) 9: 93-105.	
	LP	OUTTEN, R. et al., "Synthetic 1-Methoxybenzo[d]naphtho[1,2-b]pyran-6-one C-Glycosides," J. Org. Chem. (1987) 52(22): 5064-5066.	
	LQ	PALFNER, K. et al., "Improvement of Hammerhead Ribozymes Cleaving mdr-1 mRNA," Biol. Chem. Hoppe-Seyler (1995) 376: 289-295.	
LR		PARKES, K. E. B. et al., "A Short Synthesis of 3'-Cyano-3'-Deoxythymidine", Tetrahedron Letters (1988) 29(24): 2995-2996.	
	LS	PERRI, S. et al., "Interactions of Plasmid-encoded Replication Initiation Proteins with the Origin of DNA Replication in the Broad Host Range Plasmid RK2," J. Biol. Chem. (1991) 266(19): 12536-12543.	
	LT	PETERSHEIM, M. et al., "Base-Stacking and Base-Pairing Contributions to Helix Stability: Thermodynamics of Double Helix Formation with CCGG, CCGGp, CCGGAp, ACCGGp, CCGGUp, and ACCGGUp," <i>Biochem.</i> (1983) 22(2): 256-263.	
	LU	PFITZNER, K. E. et al., "The Synthesis of Nucleoside-5' Aldehydes, " J. Am. Chem. Soc. (1963) 85: 3027.	
	LV	PIDGEON, C. et al., "Synthesis and Liposome Encapsulation of Antisense Oligonucleotide- Intercalator Conjugates," Annals New York Academy of Sciences, 593-596.	
	LW	PUSHPA-REKA, T. R. et al., "Rat Phospholipid-hydroperoxide Glutathione Peroxidase," J. Biol. Chem. (1995) 270(45): 26993-26999.	
1,	LX	RAMIREZ, F. et al., "Nucleotidophospholipids: Oligonucleotide Derivatives with Membrane-Recognition Groups," J. Am. Chem. Soc. (1982) 104(20): 5483-5486.	
V	ĻĻY	RANGANATHAN, R., "Modification of the 2'-Position of Purine Nucleosides: Synthesis of 2'-α-Substituted-2'-Deoxyadenosine Analogs," <i>Tetrahedron Letters</i> (1977) 15: 1291-1294.	

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Complete if Known Application Number 10/080,979 02/22/2002 Filing Date First Named Inventor Phillip Dan Cook Art Unit 1635 Examiner Name Amy Hudson Bowman Attorney Docket Number ISIS-5028

		NON PATENT LITERATURE DOCUMENTS	
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ams	LZ	RAVASIO, N. et al., "Selective Hydrogenation Promoted by Copper Catalysts. 1. Chemoselectivity, Regioselectivity, and Stereoselectivity in the Hydrogenation of 3-Substituted Steroids," J. Org. Chem. (1991) 56(13): 4329-4333.	
ſ	MA	REED, M. W. et al., "Acridine- and Cholesterol-Derivatized Solid Supports for Improved Synthesis of 3'-Modified Oligonucleotides," <i>Bioconjugate Chem.</i> (1991) 2(4): 217-225.	
	МВ	REVANKAR, G. R. et al., "Synthesis and Antiviral/Antitumor of Certain 3-Deazaguanine Nucleosides and Nucleotides," J. Med. Chem. (1984) 27(11): 1389-1396.	
	мс	RICE, G. E. et al., "An Inducible Endothelial Cell Surface Glycoprotein Mediates Melanoma Adhesion," Science (1989) 246: 1303-1306.	
1	MD	RICE, G. E. et al., "Inducible Cell Adhesion Molecule 110 (INCAM-110) is an Endothelial Receptor for Lymphocytes," J. Exp. Med. (1990) 171: 1369-1374.	
МЕ		RICHERT, N. D. et al., "Stability and Covalent Modification of P-Glycoprotein in Multidrug- Resistant KB Cells," <i>Biochemistry</i> (1988) 27(20): 7607-7613.	
	MF	ROBINS, M. et al, "Nucleic Acid Related Compounds. 46. A General Procedure for the Efficient Deoxygenation of Secondary Alcohols. Regiospecific and Stereoselective Conversion of Ribonucleosides to 2'-Deoxynucleosides," J. Am. Chem. Soc. (1983) 105(12): 4059-4065.	
	MG	ROELEN, H. C. P. F. et al., "Synthesis of nucleic acid methylphosphonothioates," Nucleic Acid Research (1988) 16(15): 7633-7645.	
	МН	ROGERS, R. P. et al., "Alternative splicing dictates translational start in Epstein-Barr virus transcripts," EMBO J. (1990) 9(7): 2273-2277.	
	МІ	RONINSON, I. B., "The Role of the MDR1 (P-Glycoprotein) Gene in Multidrug Resistance In Vitro and In Vivo," Biochem. Pharmacol. (1992) 43(1): 95-102.	
T	МЈ	ROTHENBERG, M. et al., "Oligodeoxynucleotides as Anti-Sense Inhibitors of Gene Expression: Therapeutic Implications," J. Natl. Cancer Inst. (1989) 81(20): 1539-1544.	
	МК	RUBY, S. W. et al., "An Early Hierarchic Role of Ul Small Nuclear Ribonucleoprotein in Splicesome Assembly," Science (1988) 242: 1028-1035.	
	ML	SAISON-BEHMOARAS, T. et al., "Short modified antisense oligonucleotides directed against Ha-ras point mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation," EMBO J. (1991) 10(5): 1111-1118.	

Examiner Signature	Date Considered	M6/05
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Complete if Known Application Number 10/080,979 Filing Date 02/22/2002 First Named Inventor Phillip Dan Cook Art Unit 1635 Amy Hudson Bowman Examiner Name

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Sheet 22 Attorney Docket Number ISIS-5028

	NON PATENT LITERATURE DOCUMENTS				
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OHB	ММ	SAMBROOK, J. et al. (eds.), "Preparation of Radiolabeled DNA and RNA Probes," Molecular Cloning: A Laboratory Manual (1989) 2d. Ed., p. 10.59.			
\	MN	SAUL, D. J. et al., "celB, a Gene Coding for a Bifunctional Cellulase from the Extreme Thermophile "Caldocellum saccharolyticum", "Applied & Env. Microbiol. (1990) 56: 3117-3124.			
	мо	SCANLON, K. J. et al., "Ribozyme-mediated reversal of the multidrug-resistant phenotype," Proc. Natl. Aced. Sci. USA (1994) 91: 11123-11127.			
	МР	SCHMIDT, R. R. et al., "C-Glycosides from O-Glycosyl Trichloroacetimidates," Tetrahedron Letters (1982) 23(4): 409-412.			
	MQ	SCHWARTZ, A. et al., "The DNA Bending by Acetylaminofluorene Residues and by Apurinic Sites," J. Mol. Biol. (1989) 207: 445-450.			
	MR SEELA, F. et al., "Palindromic Octa- and Dodecanucleotides Containing 2'-Deoxytubercidin: Synthesis, Hairpin Formation, and Recognition by the Endodeoxyribonuclease EcoRI,"  Biochemistry (1987) 26(8): 2232-2238.				
	MS	SHEA, R. et al., "Synthesis, hybridization properties and antiviral activity of lipid- oligodeoxynucleotide conjugates," <i>Nucleic Acids Res.</i> (1990) 18(13): 3777-3783.			
	МТ	SHIBAHARA, S. et al., "Inhibition of human immunodeficiency virus (HIV-1) replication by synthetic oligo-RNA derivatives," <i>Nucleic Acids Research</i> (1987) 17(1): 239-252.			
	MU	SHIOHARA, T. et al., "Fixed Drug Eruption: Expression of Epidermal Keratinocyte Intercellular Adhesion Molecule-1 (ICAM-1)," Arch. Dermatol. (1989) 125: 1371-1376.			
	MV	SHOJI, Y. et al., "Mechanism of cellular uptake of modified oligodeoxvnucleotides containing methylphosphonate linkages," <i>Nucleic Acids Res.</i> (1991) 19(20): 5543-5550.			
	MW	SIGMAN, D., "Nuclease Activity of 1,10-Phenanthroline-Copper Ion," Acc. Chem. Res. (1986) 19: 180-186.			
	мх	SIGMAN, D. S., "Chemical Nucleases," <i>Biochemistry</i> (1990) 29(39): 9097-9105.			
<b>Y</b>	мү	SIMONS, M. et al., "Antiseuse c-myb oligonucleotides inhibit intimal arterial smooth muscle cell accumulation in vivo," Nature (1992) 359: 67-70.			

Examiner	MM	Date	0/0/1/5
Signature	1 H1 pom	Considered	7160

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Sheet 23

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Application Number	10/080,979			
Filing Date	02/22/2002			
First Named Inventor	Phillip Dan Cook			
Art Unit	1635			
Examiner Name	Amy Hudson Bowman			
Attorney Docket Number	ISIS-5028			

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Offs MZ		SINHA, N. D. et al., "The preparation and application of functionalized synthetic oligonucleotides: III. Use of H-phosphonate derivatives of protected amino-hexanol and mercapto-propanol or -hexanol," <i>Nucleic Acids Res.</i> (1988) 16(6): 2659-2669.		
	NA	SLUKA, J. et al., "Reagents and Methods for the Solid-Phase Synthesis of Protein-EDTA for Use in Affinity Cleaving," J. Am. Chem. Soc. (1990) 112(17): 6369-6374.		
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	ND	SOLOMONS, T.W. et al., Organic Chemistry (1980) John Wiley & Sons, New York, pp. 818-819.		
	NE  SPROAT, B. et al., "Highly efficient chemical synthesis of 2'-O-methyloligoribonucleotides and tetrabiotinylated derivatives; novel probes that are resistant to degradation by RNA or DNA specinucleases," Nucleic Acids Research (1989) 17(9): 3373-3386.			
	NF	SPROAT, B. et al., "The synthesis of protected 5'-mercapto-2', 5'-dideoxyribonucleoside-3'-O-phosphoramidites; uses of 5'-mercapto-oligodeoxyribonttcleotides," <i>Nucleic Acids Res.</i> (1987) 15(12): 4837-4848.		
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1	NK	STEIN, C. et al., "Antisense Oligonucleotides as Therapeutic Agents-Is the Bullet Really Magical?" Science (1993) 261: 1004-1012.		
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Application Number	10/080,979				
Filing Date	02/22/2002				
First Named Inventor	Phillip Dan Cook				
Art Unit	1635				
Examiner Name	Arny Hudson Bowman				
Attorney Docket Number	ISIS-5028				

		NON PATENT LITERATURE DOCUMENTS	
Examiner Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
NM STEIN, C. A. et al., "Physicochemical properties of phosphorothioate oligodeoxynucleotides,"  Nucleic Acids Research (1988) 16(8): 3209-3221.		STEIN, C. A. et al., "Physicochemical properties of phosphorothioate oligodeoxynucleotides," Nucleic Acids Research (1988) 16(8): 3209-3221.	
)	NN	STUFKENS, D. J., "Dynamic Jahn-Teller Effect in the Excited States of SeC16 <sup>2-</sup> , SeBr6 <sup>2-</sup> , TeCl6 <sup>2-</sup> and TeBr6 <sup>2-</sup> ," Recueil (1970) 89: 1185-1201.	
	NO	SUCIU, N. et al., "Synthesis of 9-(2,5-dideoxy-β-D-glycero-pent-4-enofuranosyl)adenine," Carbohydrate Res. (1975) 44: 112-115.	
	NP	SVINARCHUK, F. P. et al., "Inhibition of HIV proliferation in MT-4 cells by antisense oligonucleotide conjugated to lipophilic groups," <i>Biochimie</i> (1993) 75: 49-54.	
NO Covalently Attach		TELSER, J. et al., "Synthesis and Characterization of DNA Oligomers and Duplexes Containing Covalently Attached Molecular Labels: Comparison of Biotin, Fluorescin, and Pyrene Labels by Thermodynamic and Optical Spectroscopic Measurements," J. Am Chem. Soc. (1989) 111(18): 6966-6976.	
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	NS	TI, G. S. et al., "Transient Protection: Efficient One-Flask Synthesis of Protected Deoxynucleosides," J. Am. Chem. Soc. (1982) 104(5): 1316-1319.	
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	טע	TSENG, B. et al., "Antisense oligonucleotide technology in the development of cancer therapeutics," Cancer Gene Therapy (1994) 1(1): 65-71.	
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	NX	UESUGI, S. et al., "A Linear Relationship Between Electronegativity of 2'-Substituents and Conformation of Adenine Nucleosides," <i>Tetrahedron Letters</i> (1979) 42: 4073-4076.	

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Complete if Known				
Application Number	10/080,979			
Filing Date	02/22/2002			
First Named Inventor	Phillip Dan Cook	_		
Art Unit	1635			
Examiner Name	Amy Hudson Bowman			
Attorney Docket Number	ISIS-5028			

		NON PATENT LITERATURE DOCUMENTS			
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2		
ams	NY	UHLMANN, E. et al, "Antisense Oligonucleotides: A New Therapeutic Principle," Chem. Rev. (1990) 90(4): 543-584.			
1	NZ	VAN DER KROL, A. R. et al., "Modulation of Eukaryotic Gene Expression by Complementary RNA or DNA Sequences," <i>BioTechniques</i> (1988) 6(10): 958-973.			
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	OC VEBER, D. et al., "Isonicotinyloxycarbonyl, a Novel Amino Protecting Group for Peptide Synthesis," J. Org. Chem. (1977) 42(20): 3286-3288.				
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v	oluminous	and easily	<u>obtainable</u>	by the	Examiner,							

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		NON PATENT LITERATURE DOCUMENTS				
Examiner Cite Initials * No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
PHB	OL	WESTERMANN, P. et al., "Inhibition of expression of SV40 virus large T-antigen by antisense oligodeoxyribonucleotides," <i>Biomed. Biochim. Acta</i> (1989) 48: 85-93.				
	ОМ	WU, T. et al., "Prevention of chain cleavage in the chemical synthesis of 2'-silylated oligoribonucleotides," Nucleic Acids Res. (1989) 17(9): 3501-3517.				
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	OQ	YAOITA, Y. et al., "Xenopus laevis α and β thyroid hormone receptor," Proc. Natl. Aced. Sci. USA (1990) 87: 7090-7094.				
·	OR	YEUNG, A. et al., "Photoreactives and Thermal Properties of Psoralen Cross-Links", Biochemistry (1988) 27(9): 3204-3210				
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	ου	ZHANG, R. et al., "Hematopoietic development of vav mouse embryonic stem cells," <i>Proc. Natl. Acad. Sci. USA</i> (1994) 91: 12755-12759.				
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Y	ох	ZON, G., "Synthesis of Backbone-Modified DNA Analogues for Biological Applications,"  Journal of Protein Chemistry (1987) 6(2): 131-145.				

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OTHE	OY	ZUCKERMANN, R. et al., "Efficient methods for attachment of thiol specific probes to the 3'-ends of synthetic oligodeoxyribonucleotides," Nucleic Acids Research (1987) 15(13): 5305-5320.			
	oz	ZUCKERMANN, R. N. et al., "Site-Selective Cleavage of RNA by a Hybrid Enzyme," J. Am. Chem. Soc. (1988) 110: 1614-1615.	_		
<b>y</b>	PA ZUKER, M., "On Finding All Suboptimal Foldings of an RNA Molecule," Science (1989) 244: 48-52.				
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